



**FORENSIC CRASH SPECIALISTS
& 3D ANIMATION EXPERTS**

Dennis L. O'Brien

Traffic Crash Reconstructionist, Photogrammetrist,
Forensic 3D Computer Collision Simulator, Modeler & Animator

CURRICULUM VITAE

Profile

I am a fully accredited Traffic Collision Reconstructionist with 22 years of experience investigating traffic collisions, including 18 years of full time law enforcement experience. Certifications held from the best schools available. State and Federal Court Qualified Expert in the field of traffic crash reconstruction and as a forensic 3D animator with experience animating and modeling both motor vehicle collisions, crime scenes and industrial accidents.

Experience & Work History

President – Forensic Crash Specialists & 3D Animation Experts

Forensic Crash Specialists Inc., Santa Fe, NM 2014 – Present

Applying twenty-two years of knowledge and experience as a responder and investigator of motor vehicle collisions. First-hand experience locating, interpreting and processing physical evidence with state of the art equipment for use in accident reconstruction. Court accepted expert in the field of traffic crash reconstruction and forensic 3D animation. 3D animations and graphics are prepared for presentation and use in all areas of litigation. 24 hour active scene response to motor vehicle collisions around the state to preserve and document evidence. Serve as consultant to both federal and state level attorneys in both the civil and criminal court systems.

President - Senior Traffic Crash Reconstructionist, Photogrammetrist & Forensic 3D Animator

CrashTeams NEW MEXICO Inc., Santa Fe, NM 2008 - 2014

Traffic Crash Reconstruction and 3D impact simulation and animation services provided as a member of the CrashTeams Global Network. Services included active scene response to conduct active crash site investigations and forensic processing across the State of New Mexico.

Traffic Crash Reconstructionist-Owner, IMPACT DYNAMICS; Santa Fe, NM - 1998 - 2008

Traffic crash reconstruction services provided to clients in assisting them in solving how a collision occurred and what the contributing factors for each crash was.

Lieutenant, Santa Fe County Sheriff's Office; Santa Fe, NM - 1994 - 2009

Division commander of Traffic Homicide Investigation Team, Patrol and K-9 Divisions. I served as a



4217 Coyote Lane | Santa Fe, New Mexico 87507

T: 505 474 8858 | F: 505 474 1004 | C: 505 577 3439

dennis@forensiccocrashspecialists.com | www.forensiccocrashspecialists.com

EXHIBIT

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supervisory patrol officer and first responder to all types of motor vehicle collisions, airplane crashes, industrial accidents and crime scenes. I also provided mutual aide services to State and Federal Law Enforcement Agencies with specialized investigation and processing techniques.

State of NM Law Enforcement Academy Police Officer Certification and training in motor vehicle collision investigations continued by advanced training through collision reconstruction and applied physics for Collision Reconstructionist's.

Police Officer, San Juan Tribal Police Department; San Juan Pueblo, NM 1991 - 1994

Police Officer performing duties on the San Juan Pueblo Indian Reservation. Federal Police Officer Certification obtained through the Federal Law Enforcement Training Center (FLETC), which included training in motor vehicle crash investigations. I responded to & investigated all types of cases, including crime and motor vehicle collisions.

Selected Advanced Training, Certifications & Education

Northwestern University Traffic Institute, NM Law Enforcement Academy;
Santa Fe, NM - 1995; ***At-Scene Accident Investigations Course***

University of North Florida - Institute of Police Technology & Management
Jacksonville, Florida - 1997; ***Advanced Traffic Accident Investigation***

University of North Florida - ***Institute of Police Technology & Management***
Jacksonville, Florida - 1997; ***Traffic Accident Reconstruction***

University of North Florida - Institute of Police Technology & Management
Santa Fe, New Mexico - 1997; ***Pedestrian & Bicycle Accident Investigation***

University of North Florida - Institute of Police Technology & Management2
Jacksonville, Florida - 1998; ***Special Problems in Traffic Accident Reconstruction***

University of North Florida - Institute of Police Technology & Management
Peabody, Massachusetts - 2001; ***Applied Physics for Traffic Crash Investigators***

VS Visual Statement Incorporated; ***Advanced Forensic Diagramming Using Total Station – 2003*** - Kamloops, British Columbia, Canada

National Training Center; North American Standard Level 1
Albuquerque, NM - 2004; ***Commercial Vehicle Safety Alliance Inspector Certification***

CURRICULUM VITAE - CONTINUED

Tripod Data Systems – Nikon AIMS Training Course
Santa Fe, New Mexico: *Laser Total Station Measurement & Mapping Certification*

Collision Safety Institute - CSI Crash Data Retrieval Specialist
El Paso, Texas - 2009; *Bosch/Vetronix Crash Data Retrieval (CDR) Technician Course*

Collision Safety Institute - CSI Crash Data Retrieval Specialist
El Paso, Texas - 2009; *Bosch/Vetronix Crash Data Retrieval (CDR) Data Analyst Course*
EOS Systems PhotoModeler - Photogrammetry Software Tool
Chicago, Illinois - 2009; *PhotoModeler Collision Investigation Certification Course*

Accident Analysis & Reconstruction, Inc. & Crash Data Specialists
Las Vegas, Nevada - 2011; *Advanced Collision Reconstruction with CDR Applications & Crash Data Retrieval Update*

Accident Analysis & Reconstruction, Inc. & Crash Data Specialists
Las Vegas, Nevada - 2012; *Crash Energy Analysis In Collision Reconstruction*

ARAS360 Technologies Inc.
Kamloops, BC Canada – Virtual Training Session June 18-20, 2012;
ARAS 360 HD: Train the Trainers

MEA Forensic Engineers & Scientists - (MacInnis Engineering Associates Ltd.)
Richmond, BC Canada (On-line Workshop) 2012;
PC-Crash Essentials Training Course – 3D Collision Simulation Tool

MEA Forensic Engineers & Scientists - (MacInnis Engineering Associates Ltd.)
Richmond, BC Canada (On-line Workshop) 2012;
PC-Crash Expert Skills Training Course – 3D Collision Simulation Tool

Institute of Police Technology & Management (IPTM)
Santa Fe, New Mexico (On-line Course) 2013;
Online Bosch CDR Technician Course by IPTM

Northwestern University Center for Public Safety (NUCPS)
Albany, New York – NYSP Academy - August, 2013
Preserving and Analyzing Information from Heavy Vehicle Event Data Recorders (EDR)

Accident Analysis & Reconstruction, Inc. & Crash Data Specialists
Las Vegas, Nevada – October 2013; *Pedestrian Collision Reconstruction*

Law Enforcement Certifications

Federal Police Officer Certification - Federal Law Enforcement Training Center (FLETC) – 1993
Artesia, New Mexico – Training included Basic Accident Investigation Training

New Mexico Law Enforcement Officer Certification - NM Law Enforcement Academy – 1995
Santa Fe, New Mexico – Training included Basic Accident Investigation Training
~ Other Training / Certifications obtained and available upon request ~

Professional Associations

ACTAR - The Accreditation Commission for Traffic Accident Reconstruction
Member #2218; ***Full Accreditation as a Traffic Accident Reconstructionist***

NAPARS - National Association of Professional Accident Reconstructionist Specialists, Inc.
Member #34100

Licensed State of New Mexico Private Investigator
Member #2814

Skills & Experience

I have first-hand experience of in-depth identification, processing and collection of evidence from 21 years of “on-the-scene” crash and crime scene forensic analysis. I have processed and measured major crash and crime scenes in detail, utilizing manual, photogrammetry and laser mapping techniques. I prepare conventional scale scene maps & diagrams along with diagrams over aerial photos.

I am an experienced Forensic 3D Animator, Photogrammetrist and Modeler. I use state of the art software to recreate the incident utilizing forensic scene processing data. The animations, simulations and graphics are rendered to video and other media for presentation in litigation. Crashteam's NEW MEXICO Inc. prepares quality animations for any scenario.

Professional Forensic Measurement & Mapping Trainer

ARAS 360 Technologies – Trainer, 3D Software Product Resource, Consultant and Share Holder
ARAS 360 & ARAS 360 HD are state of the art 3D Traffic Crash Reconstruction & 3D Animation software programs used by investigators and law enforcement officers worldwide

❖ Serving since March 2010 & Kamloops, BC - Canada 2010

CURRICULUM VITAE - CONTINUED

VS Visual Statement Vista FX3 - Collision Reconstruction Measurement, Diagramming & Animation Software Trainer - Crash Reconstruction Software Trainer for VS Visual Statement FX3 - Trainer in the use of laser mapping total station systems utilizing on-board data collectors and VS m-FX data collection software. Students were instructed on the use and application of measurements obtained from scenes to create scale diagrams and 3D animations

◆ Served as a trainer from 2004 -2009

Expert Court Venues Served & Testimony List

United States Federal Court - District of New Mexico, Albuquerque, NM

United States Special Military Court Martial - 377th Air Base Wing, Kirtland Air Force Base, NM

First Judicial District Court, Santa Fe, NM – Santa Fe & Rio Arriba Counties (Criminal Court, Civil Court & Family Court)

Second Judicial District Court, Albuquerque, NM – Bernalillo County

Eighth Judicial District Court, Taos, NM – Taos County

Thirteenth Judicial District Court, Los Lunas, NM - Valencia County

Santa Fe County Magistrate Court, NM – Santa Fe County

Espanola Municipal Court, Espanola, NM – Rio Arriba County

Pueblo County District Court, - State of Colorado – (Advisory Expert)

3D Animation Debuts & Venues

National Television Network Broadcast

CBS Television Show "Inside Edition"

Episode titled "*Falling Ice Nearly Kills Driver*" - Air Date: 1/11/2010

Animation prepared and aired by producers to show an ice projectile fall and penetrate a vehicle windshield, causing major injury to the driver.

Other 3D Animation Venues

Alamogordo, NM - Fatal Motor Vehicle Collision Animation - 2005

Albuquerque, NM - Serious Injury Head-on Collision - 2007

Alamogordo, NM - Homicide Crime Scene Animation - 2009

Albuquerque, NM – Vehicle v. Motorcycle Rear-End Collision - 2009

Las Vegas, NV - Vehicle v. Pedestrian Collision Animation - 2010

Santa Fe, NM - Vehicle v. Bicycle Collision Animation - 2010

Santa Fe, NM - Bus v. Pedestrian Collision Animation – 2010

Shoreline, WA – Pedestrian Motor Vehicle Collision – 2010

Pinellas County, FL – Toll Booth Barricade Rail Incident – 2011

Albuquerque, NM – Police Pursuit Animation – 2011

CURRICULUM VITAE - CONTINUED

Taos, NM – Vehicle v. Motorcycle Sight Obstruction Collision – 2012
Santa Fe, NM – Vehicle v. Pedestrian Collision 2012
Albuquerque, NM – Pavement Drop-off Leads to Collision – 2012
Evansville, IN – Fire Rescue Truck vs. Chevrolet Pickup Truck Collision – 2012
Las Vegas, NV – Officer Involved Shooting Animation – 2013
Glasgow, KY – Vehicle v. Farm Tractor Collision Animation – 2013
Albuquerque, NM – Vehicle v. Backhoe Tractor Collision Animation – 2013
Greenville, PA – Walker v. Knoll Furniture – Industrial Injury Animation – 2013
Royersford, PA – Construction Site – Product Liability Injury Animation - 2013

Software Tools Used

- ❖ ARAS360 HD – Traffic Collision Computer Aided Drawing, Reconstruction & Animation Software
- ❖ PC-Crash 3D – Validated Vehicle, Motorcycle, Bicycle & Pedestrian Collision Simulation Software
- ❖ PhotoModeler Scanner 2013 – Photogrammetry & Dense Surface Modeling Software
- ❖ CrashZone 9 – Computer Aided Drawing & Reconstruction Software
- ❖ MapScenes Point Cloud 2010 – Computer Aided Drawing & Reconstruction Software
- ❖ VS Visual Statement FX3 – Computer Aided Drawing & Reconstruction Software
- ❖ Lightwave 3D - Newtek Motion Picture Animation & Compositing Software
 - Modeler – 3D Modeling Software
 - * LWCAD Modeling Tools
 - Layout – 3D Animation & Special Effects Software
 - Luxology MODO – 3D Modeling & Animation Software
 - Poser Pro 2014 – Character Creation & 3D Animation Software
 - Apple Shake 4 – Video Compositing Software
 - Final Cut Pro X – Video Editing & Rendering Software

Referrals

References are available upon request